

Idea for Compressed COT Data Format for Michigan TDCs

R. Moore 5/27/2004

Event Data read from TDC VME FIFO	
Order	Description
1	Compressed data word
	:
	:
	Compressed data word
	Hit count word channels 95-88
	Hit count word channels 87-80
	Hit count word channels 79-72
	Hit count word channels 71-64
	Hit count word channels 63-56
	Hit count word channels 55-48
	Hit count word channels 47-40
	Hit count word channels 39-32
	Hit count word channels 31-24
	Hit count word channels 23-16
	Hit count word channels 15-08
	Hit count word channels 07-00
	Possible padding word (0xFFFFFFFF)
N	Event header word

Compressed Data Word				
	Channel m, Hit j $0 \leq m \leq 95 \quad 1 \leq j \leq 7$		Channel m, Hit j+1 <i>OR</i> Channel m+1, Hit 1	
Bits	31-22	21-16	15-6	5-0
	Time	Width	Time	Width
			Later hit on same channel OR First hit on next (higher) channel	

Hit Count Word									
Bits	31-24	23-21	20-28	17-15	14-12	11-9	8-6	5-3	2-0
Channel # modulo 8	Unused	7	6	5	4	3	2	1	0